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CONTROLLING FINANCIAL RISK

ALMIS user webinar
Liquidity Coverage Ratio
& Net Stable Funding Ratio

Corep/Finrep regulations

31 July 2012 – 2.30 BST

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AGENDA

- Brief Introduction
- Background to new regulations
- LCR
  - Definition
  - Example Calculation
  - Indicative Calculation using FSA 47/48 data
- NSFR
  - Definition
  - Example Calculation
  - Indicative Calculation using FSA 47/48 data
- ALMIS Implementation

Regulations Background

FSA

- FSA Strengthening Liquidity Standard
- PS 09/16 October 2009

BIS

- BASEL III – International framework for liquidity risk measurement
- December 2010

EBA

- Capital Requirements Directive (CRD IV)
- July 2011

Basel III / EBA

- During liquidity phase of 2007/8 financial crisis many banks, despite having adequate capital levels – experienced difficulty because they did not manage their liquidity in a prudent manner
- Sept 2008 committee published the sound principles
- Dec 2010 to compliment the sound principles, developed two minimum standards
- European Parliament proposals July 2011 CRD IV
- December 2011 – EBA Consultation Paper
- During 2012 firms EBA asking voluntary participation
- LCR Mandatory from January 2013 but final format / taxonomy not yet agreed

Two minimum standards

- Two separate but complimentary objectives

Liquidity Coverage Ratio

Promote short term resilience – ensuring it has sufficient high-quality liquid assets to survive a significant stress lasting one month (30 days)

Net Stable Funding Ratio

Promote resilience over a longer time horizon by creating additional incentives for Banks to fund their activities with more stable sources of funding on an on-going basis

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Liquidity Coverage Ratio

Has enough liquid assets to survive a stress for 30 days before corrective action can be taken

$$\frac{\text{Stock of high quality liquid assets}}{\text{Total net cash outflows over next 30 days}}$$

=>100%

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Stock of high quality assets

- Low credit & market risk
- Ease and certainty of valuation
- Low correlation with risk assets
- Listed on a developed and recognised exchange market

- Active & sizable market
- Presence of committed market makers
- Low market concentration
- Flight to quality

Operational characteristics

- Must be available to convert to cash at any time
- Must be unencumbered – not pledged explicitly or implicitly
- A Bank should periodically monetise a proportion of the assets
- If hedged, cost of breaking the hedge should be taken into account
- The LCR should be monitored and reported by each currency

Definition

- Level 1
  - Cash
  - (eligible) Central bank reserves
  - Marketable securities guaranteed by sovereigns, central banks……
    - Assigned 0% risk weights under Basel II (SA)
    - Traded in large, deep and active markets
    - Proven record
    - Not an obligation of a financial institution
- Level 2 (minimum 15% haircut)
  - Marketable securities guaranteed by sovereigns, central banks……
    - Assigned 20% risk weights un Basel II (SA)
    - Traded in large, deep and active markets
    - Proven record
    - Not an obligation of a financial institution
  - AA- or better non financial corporate bonds
    - Not issued by bank or affiliated entities
    - Traded in large, deep and active markets
    - Proven record
  - Not self issued AA- or better Covered Bonds
    - Traded in large, deep and active markets
    - Proven record

Level 2 (after haircut) cannot be more than 40% of total

Total Net Cash Outflows

Total expected cash outflows minus total expected cash inflows (up to to a maximum of 75% of outflows) in the specified stress scenario for the subsequent 30 calendar days

- Cash outflows
  - Retail deposit run-off
  - Unsecured wholesale funding run-off
  - Secured funding run-off
  - Additional requirements
- Cash inflows
  - Reverse repos and securities borrowing
  - Other inflows by counterparty
  - Other cash inflows

Retail deposit run-off

- Retail deposits are defined as deposits placed with natural persons
- Deposits are divided into stable and less stable
  – Stable (run off rate 5%)
    - Fully covered by guarantee..and
    - Established relationship or in transactional accounts
  – Less stable (run off 10%)
- Supervisors are expected to develop additional buckets with higher run-off rates
- If a firm cannot readily identify which retail deposits would qualify as 'stable' it should place the full amount as less stable
- Fixed or Notice deposits maturing after 30 days can be excluded if no legal right of withdrawal – unless there is a precedence of early withdrawal or supervisors state they will apply >0%

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Unsecured wholesale funding run-off

- Raised from non-natural persons and not collateralised that is callable or matures within 30 days (subject to reputational factors)
  - Small business customers treated the same as retail (if less €1m) (5% stable or 10% less stable)
  - Unsecured wholesale funding with operational (clearing, cash management or custody) relationship and substantive dependency and proven to serve operational needs – 25%
  - Subject to supervisory approval - deposits in institutional networks of cooperative banks – 25%
  - Unsecured funding by non-financial corporate and sovereigns, central banks and public sector entities – 75%
  - Unsecured funding by other legal entities – 100%

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Secured funding run-off

- Funding that is collateralised and matures in 30 days
  - Backed by level 1 assets – 0%
  - Backed by level 2 assets – 15%
  - Secured transactions with sovereign, central bank not backed by level 1 or 2 assets – 25%
  - Other – 100%

Additional requirements

- Derivative payables (net) in 30 days (net of collateral) 100%
- Increased liquidity needs relating to up to 3 notch downgrade trigger 100%
- Increased needs related to valuation changes on non cash or level 1 collateral 20%
- Loss of funding on asset backed securities in 30 days 100%
- Committed credit & liquidity facilities
  - Committed credit and liquidity facilities within 30 days to retail and small business customers – 5%
  - Committed credit facilities to non-financial corporates – 10%
  - Committed liquidity facilities to non-financial corporates – 100%
  - Committed credit and liquidity facilities to other legal entities – 100%
  - Contractual obligations to extend funds within 30 days

    If the total of all contractual obligations to retail and non financial clients within 30 days exceeds 50% of contractual inflows within 30 days from these clients, then the difference should be reported as a 100% outflow
- Other contingent funding obligations (run off at national supervisors discretion)
- Other contractual cash outflows – 100%

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Cash Inflows

- Capped at 75% on outflows
- Lines of credit not included
- Retail and small business customers – 50% of contractual in 30 days
- Other wholesale
  - Financial institutions – 100%
  - Non-financial institutions – 50%
- Other cash-flows
  - Derivatives receivable (100% net)
  - Other ‘financial’ inflows

Example Bank/BS

LCR

Assets

- Liquidity 25
  - Call 5
  - T Bill 5
  - BoE R 5
  - BS Dep 5
  - Gilt > 1 Yr 5
- Lending 70
  - Retail M 65
  - Comm 5
- Other Assets 5

Pipeline 4
Swap CF in 30 days (1)

Liabilities

- Retail 60
  - Type A 20
  - Type B 20
  - Type B Fix 20
- Small Bus 20
  - Type A 15
  - Notice 90 5
- Other W/S 8
  - < 30 days 5
  - > 90 days 3
- Capital 12

Level 1 Assets = 15

Outflows:

Retail A 20 * 10% = 2.0
Retail B 20 * 5% = 1.0
SB 15 * 10% = 1.5
WS 5 * 100% = 5.0

Additional
Swap = 1.0
Pipeline = 4.0
Total Outflow 14.5
Inflow
Call = 5.0

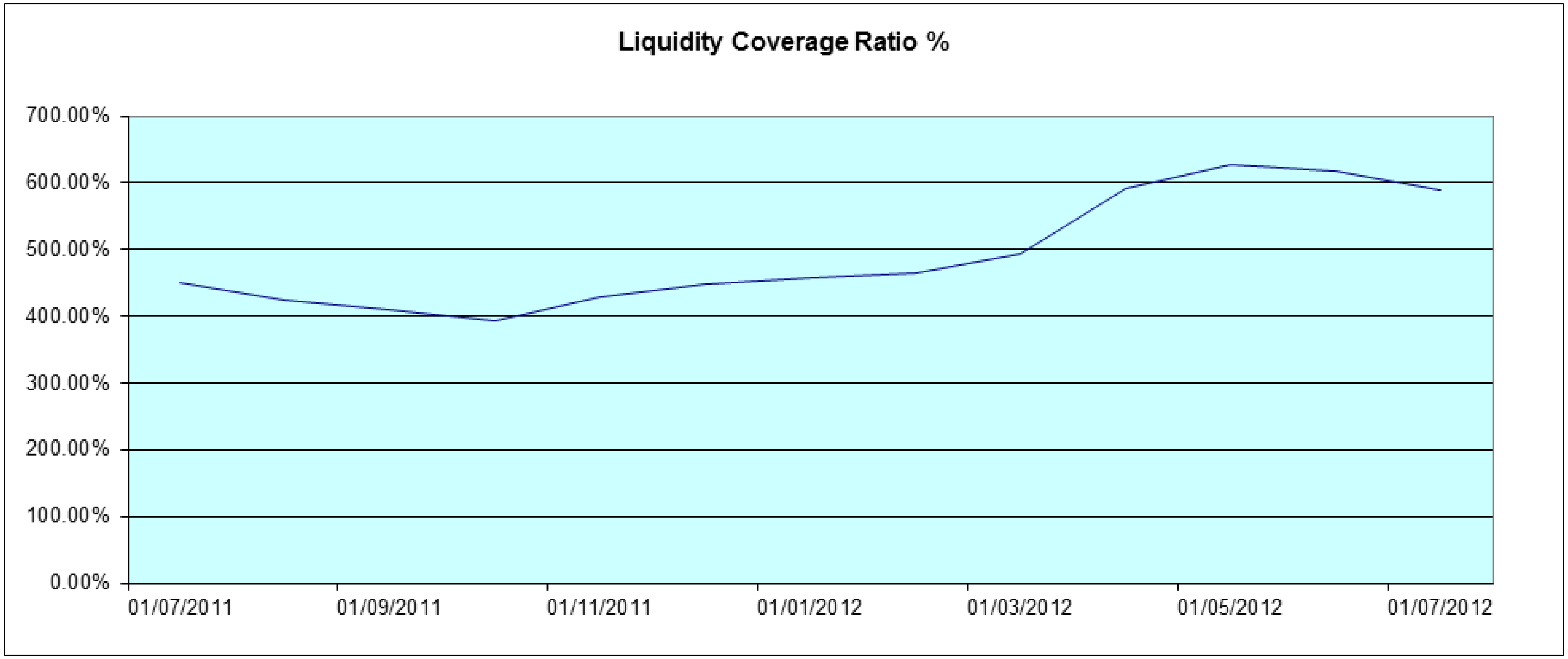
Net Outflow 9.5
LCR = 15/9.5 = 157.9%

FSA’s Liquidity Metric Monitor Indicative Calculation

- Uses calendar month (modified following) not 30 days
- Uses principal and does not include interest or other cash-flows or non interest assets
- Mapping between Type A/B and Less Stable/Stable
- SME has no Stable/Less Stable split
- LMM excludes HQS maturing < 1 month
- No additional buckets
- No operational balances

Results calculated using ALMIS

Portfolio Name	July 2011	August 2011	September 2011	October 2011	November 2011	December 2011	January 2012	February 2012	March 2012	April 2012	May 2012	June 2012	July 2012
Balance Sheet Date	**31/07/11**	**31/08/11**	**30/09/11**	**31/10/11**	**30/11/11**	**31/12/11**	**31/01/12**	**29/02/12**	**31/03/12**	**30/04/12**	**31/05/12**	**30/06/12**	**31/07/12**
High Quality Assets	85,053	82,501	79,099	93,558	105,466	114,822	112,270	105,040	96,195	110,399	114,226	93,558	89,306
Net Outflows (30 Days)	18,922	19,490	19,319	23,788	24,599	25,658	24,561	22,555	19,545	18,676	18,222	15,138	15,138
Surplus	66,131	63,012	59,780	69,770	80,867	89,163	87,709	82,485	76,650	91,723	96,004	78,421	74,168
Liquidity Coverage Ratio %	449.49%	423.31%	409.43%	393.30%	428.75%	447.50%	457.11%	465.71%	492.17%	591.13%	626.86%	618.05%	589.96%



Net Stable Funding Ratio

- To promote medium / longer term structural funding of assets away from short-term funding mismatches and towards more stable, longer-term funding, particularly an over reliance on short-term wholesale funding

$$\frac{\text{Available amount of stable funding}}{\text{Required amount of stable funding}} > 100\%$$

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Available stable funding

- 100%
  - Tier 1 & 2 Capital and other capital maturity > 1 year
  - Secured & unsecured funding maturity > 1 year
- 90%
  - Stable non maturity or term < 1 year from retail and small business deposits
- 80%
  - Less Stable non maturity or term < 1 year from retail and small business deposits
- 50%
  - Unsecured wholesale < 1 year from non-financial corporates, sovereigns, central banks and PSEs

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Required stable funding

- 0%
  - Cash, short-term unsecured actively traded instruments < 1Yr, securities < 1 yr, loans to financial co's < 1 yr
- 5%
  - Debt issues or guaranteed by sovereigns, CB, development banks with risk weighting 0%
  - Undrawn committed credit facilities
- 20%
  - Unencumbered non-financial senior unsecured corporate bonds and covered bonds rated at least AA- with risk weighting 20% maturity > 1 yr
- 50%
  - Unencumbered listed equity or non financial senior unsecured corporate bonds rated from A+ to A- , Gold and Loan to non-financial corporates, sovereigns and PSE with maturity < 1 yr
- 65%
  - Residential mortgages of any maturity and other loans > 1 yr maturity that would qualify for a 35% risk weight
- 85%
  - Other loans to retail and small business having maturity < 1 yr
- 100%
  - All other assets
- National Discretion
  - Other contingent funding obligations

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Example Bank/BS

NSFR

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- Liquidity 25
  - Call 5
  - T Bill 5
  - BoE R 5
  - BS Dep 5
  - Gilt > 1 Yr 5
- Lending 70
  - Retail M 65
  - Comm 5
- Other Assets 5

Liabilities

- Retail 60
  - Type A 20
  - Type B 20
  - Type B Fix 20
- Small Bus 20
  - Type A 15
  - Notice 90 5
- Other W/S 8
  - < 30 days(bk) 5
  - > 90 days (la) 3
- Capital 12

Pipeline 4

Swap CF in 30 days (1)

Available funding

Capital	**12 * 100% =**	**12**
Stable R	**40 * 90% =**	**36**
Stable SB	**05 * 90% =**	**4.5**
N Stable	**35 * 80% =**	**28**
W/S	**03* 50% =**	**1.5**
Total		**81.5**

Required funding

Call, TB, BoER, BSD	**20@0%**	**0**
Gilt	**5@5%**	**0.25**
35% RW Mortgages	**60@65%**	**39**
Other Assets	**15@100%**	**15**
Total		**54.25**

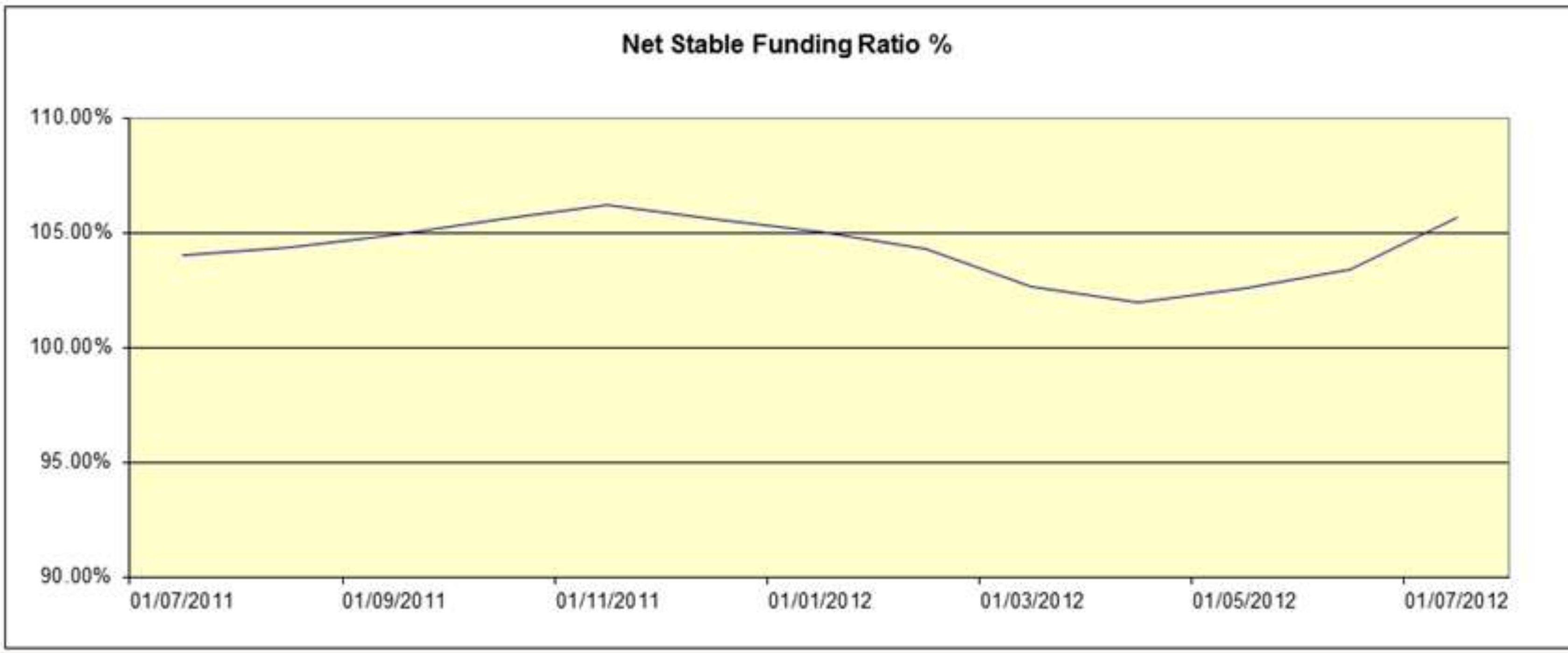
NSFR = 81.5 /54.25 = 150.2%

FSA's Liquidity Metric Monitor Indicative Calculation

- Uses calendar month (modified following) not 30 days
- Uses principal and does not include interest or other cash-flows or non interest assets
- Mapping between Type A/B and Less Stable/Stable
- SME has no Stable/Less Stable split
- No additional buckets
- No operational balances
- Does not capture <>35% RW

Results calculated using ALMIS

Portfolio Name	July 2011	August 2011	September 2011	October 2011	November 2011	December 2011	January 2012	February 2012	March 2012	April 2012	May 2012	June 2012	July 2012
Balance Sheet Date	**31/07/11**	**31/08/11**	**30/09/11**	**31/10/11**	**30/11/11**	**31/12/11**	**31/01/12**	**29/02/12**	**31/03/12**	**30/04/12**	**31/05/12**	**30/06/12**	**31/07/12**
Available Funding (Liabilities)	851,761	845,856	843,222	856,991	888,120	888,553	885,321	873,763	843,001	823,123	835,047	827,471	853,793
Funding Requirement (Assets)	819,009	810,665	804,008	811,625	836,058	841,549	842,675	837,854	821,271	807,132	814,312	800,543	808,088
Surplus	32,752	35,191	39,214	45,366	52,062	47,004	42,646	35,909	21,730	15,991	20,735	26,928	45,705
Net Stable Funding Ratio %	104.00%	104.34%	104.88%	105.59%	106.23%	105.59%	105.06%	104.29%	102.65%	101.98%	102.55%	103.36%	105.66%



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Input form for XBRL submission

Calculate automatically from ALMIS data-base

Forward looking reports & ratios

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